Year 9 Forensics Revision

Forensic Science

1. List some of the things a forensic scientist does. What kind of skills should she possess?

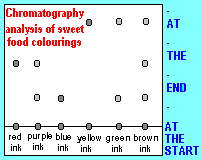
Makes careful observations, analyses evidence, makes guesses, investigates, collects scientific evidence,

Observations

1. Look at the picture given to you for 30 seconds. Then turn it over.
2. What time was it on the clock?
3. How many people were in the scene? How many males? females?
4. Describe the person at the front of the line. Was it a man or a woman? Was he or she wearing a hat? What kind of clothes was the person wearing? Could you tell how tall the person was? Did he or she have any distinguishing features?
5. What day of the month was it?
6. Did you notice anything unusual in the picture?
7. An eyewitness is
8. A person who sees a crime and provide evidence through a description of what happened
9. A person who commits a crime and confesses to what happened
10. A person who heard about a crime through another person
11. A person who sees a witness to a crime

Chromatography

1. Chromatography is
2. A method used to separate colours in ink
3. A technique for mixing colours together when producing ink
4. An analysis of the way letters are produced by a printer
5. The reflection of UV light onto ink to light up security features



1. The diagram shows the results of a chromatography investigation

into the colours extracted from sweets. From the results, you could

infer that

1. green is made of blue and red colours
2. purple is made of blue and red colours
3. blue, green and red are each made up of just one colour
4. brown is made of blue, green and yellow colours

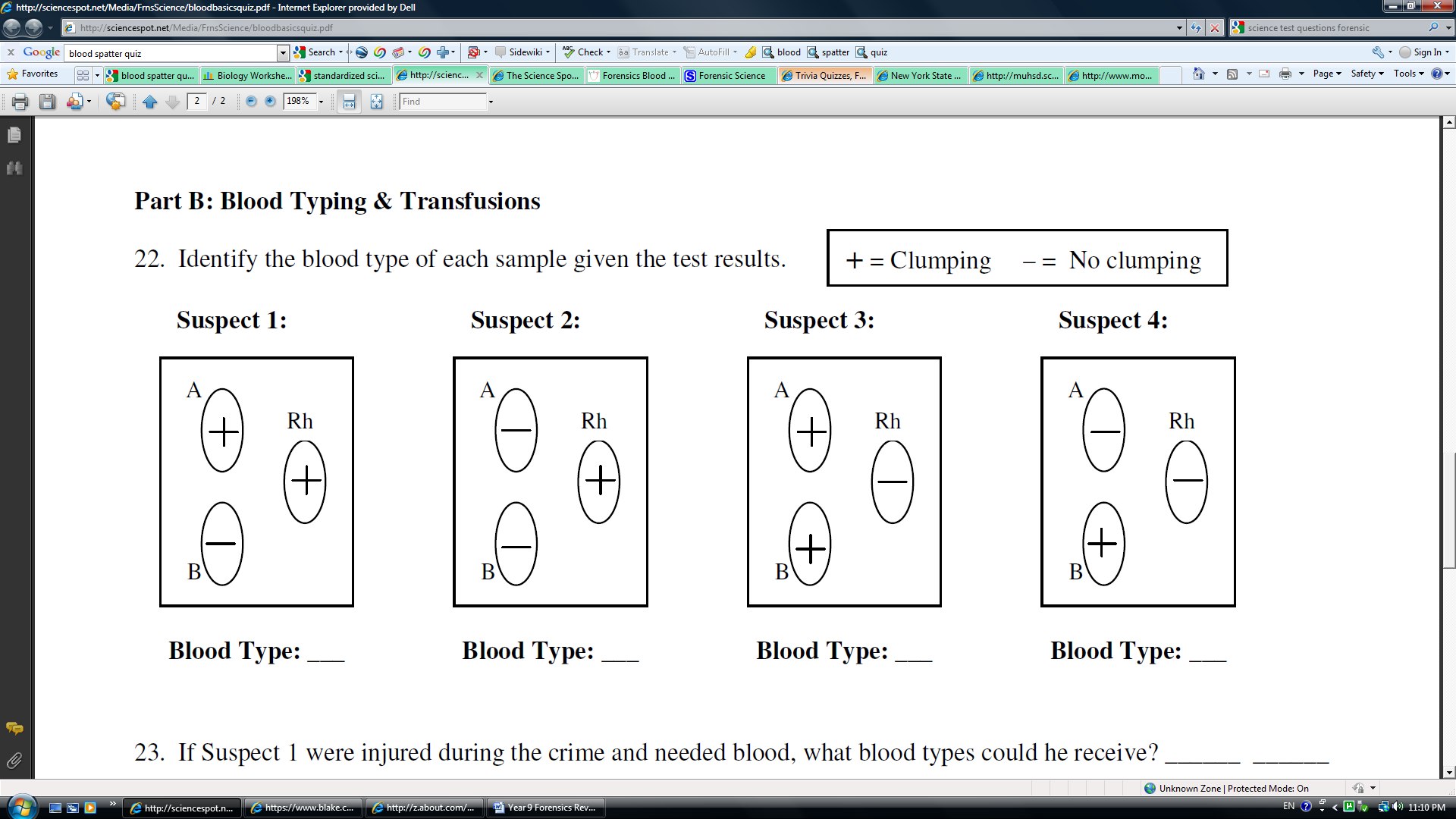
Fingerprints

1. What is the name given to the study of fingerprints?
2. Dactyloscopy
3. Palynology
4. Entomology
5. Trichology
6. What is the function of the ridges on our fingers which create fingerprints?
7. They provide protection for our touch receptors.
8. They help us to identify individual human beings.
9. They enable us to grasp objects.
10. They provide insulation for the tissues under the skin.
11. What causes fingerprints to be left behind when we touch things?
12. the smoothness of the surfaces we touch
13. the dust on the things we touch
14. the moisture in the atmosphere
15. the natural oils in the skin
16. Which of the following is NOT one of the three basic types of fingerprint patterns?
17. Loops
18. Spirals
19. Arches
20. Whorls
21. Which of the following statements about fingerprints is NOT true? Fingerprint similarities between family members
22. Fingerprint patterns do not change with growth or age
23. Fingerprints are unique for every human being.
24. Fingerprints are no more similar between two family members than between two strangers
25. Even identical twins do not have identical fingerprints
26. Which animal is said to have fingerprints virtually indistinguishable from those of human beings?
27. Raccoon
28. Koala
29. Lemur
30. Panda
31. Why is it usually impossible to obtain fingerprints from textiles such as fabric, clothing and carpet?
32. Because textiles are very absorbent
33. Because textile fibres are resistant to the powders used to dust for prints
34. Because textiles almost always contain synthetic materials
35. Because most modern fibres are treated with fluorocarbons to repel moisture
36. There are two simple ways to take our fingerprints. What are they?

Blood

donors / Type O / genes / spatter / haemoglobin / Type A / platelets / Type B / Type AB / Rh factor / white blood cells / plasma

1. Match each term to its best definition:
2. Protein found in red blood cells that carry oxygen haemoglobin
3. Component of blood that is part of our immune system and destroy pathogens in our body white blood cells
4. Yellowish liquid part of the blood plasma
5. Clotting factors in our plasma that clot together to prevent blood loss from a wound platelets
6. Our blood type is determined by these, which are inherited from our parents genes
7. Blood type that contains A agglutinogens Type A
8. Blood type that contains B agglutinogens Type B
9. Blood type that contains both A and B agglutinogens Type AB
10. Blood type that does not contain A or B agglutinogens Type O
11. Indicates the presence of a specific protein; discovered while studying Rhesus monkeys. Rh factor
12. People with Type O blood are called universal \_\_\_\_ because they can give blood to anyone donors
13. Blood \_\_\_\_\_\_\_\_\_\_\_\_ analysis is studying which way the blood flew if there was force involved. spatter
14. Can a person with type A blood safely be transfused with type O blood? Yes / No. Explain. Blood type O is a universal donor and can give blood to anyone, because it has neither A or B antigens and so will be accepted by Type A blood.



3.

A+ O+ AB- B-

4. If Suspect 1 were injured during the crime and needed blood, what blood types could he receive? A+, A-, O+, O-

5. If Suspect 4 volunteered to donate blood, which blood types could receive his blood? B-, O-

**Blood Spatter**

1. Which of the three blood droplets shown would have been created by a wound in the lower part of the leg? Explain. I’d say the smaller one, as blood spatter closer to the ground produces a smaller circle of spatter.



1. If you found a blood droplet as shown below at a crime scene, what does it tell you?

Explain. The direction someone is going or the direction of the strike

1. If you find a trail of blood with droplets that are very close together, what could this

mean? That the victim is moving quite slowly, and badly injured???

DNA

1. Select the incorrect statement about DNA
2. DNA is a foolproof way of identifying people, with 100% accuracy
3. DNA is a chemical that is present in every cell of your body
4. DNA from a hair, skin cells, saliva, and even dandruff can be used to identify a person
5. Almost every human has its own unique DNA. The only exceptions are identical twins.

DNA is found wherever red blood cells are present. True / False. Explain.

Although blood is an excellent source of DNA, the DNA does not come from the red blood cells, as these cells have no nuclei. Rather, the DNA comes chiefly from white blood cells in the blood.

BUGS

The study of bugs and their development on human corpses to determine time of death is called entomology